

RAMADGE (F.H.)

Consumption curable

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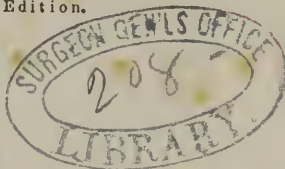
CONSUMPTION CURABLE.

THE MANNER IN WHICH
NATURE AND REMEDIAL ART OPERATE
IN EFFECTING A HEALING PROCESS
IN CASES OF CONSUMPTION,
AND BY WHICH
THE DEVELOPMENT OF TUBERCLES
MAY BE PREVENTED.

By Francis Hopkins Ramadge, M.D.,

Fellow of the Royal College of Physicians, Senior Physician to the Infirmary
for Asthma, Consumption, and other Diseases of the Chest.

From the third London Edition.




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SOLD BY J. M. HOWE, DENTIST,
No. 102 Grand Street, N. Y.

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 This Book, together with the Tube, may be had of J. M. Howe, Dentist, at No. 102 Grand Street, New York. Mr. Howe will, also give directions as to the use of the Tube, and any other information in his power connected with this subject. All letters must be post paid.



INTRODUCTION.

IN laying the following extracts, from the work of Dr. Ramadge, before the American public, it may be proper to give some explanation as to the circumstances which have led to this publication. The following letter, which appeared in the *Christian Advocate and Journal*, of March 1, 1839, will throw some light upon this subject.

TO CONSUMPTIVES.

Messrs. Editors,—A two-fold object induces me to present the following for publication: the one to proclaim the goodness of God in his providential dealings with me in staying the hand of disease and death, and the other the very novel instrumentality by which it has been effected; hoping, by the blessing of God, it may be a means of saving some similarly afflicted. And, without entering into any detail of the general state of my health, I would remark that I took a cold in December, 1837, after attempting to preach, which settled in my throat, and finally terminated in chronic bronchitis; and, after having had the best medical advice at home for about four months without any benefit, but rapidly getting worse, so that my throat and lungs were considerably affected and my voice reduced to a whisper, every change of weather affecting me much, I was informed by my medical friends that I had nothing to expect from medicine, and that a sea voyage and change of climate would be the only possible means of alleviating my symptoms. In June last, I sailed for Liverpool. The result of the voyage was entire physical prostration; but I still hoped that change of climate would perform for me what the voyage had not. For this purpose I travelled to some extent in England, and consulted three of the most eminent physicians, who recommended similar means to those of the physicians at home. These remedies gave me no relief, but rather aggravated my disease, together with the humidity and

changeableness of the climate and the fatigue of travelling. I then went into France, hoping, for the time being, my symptoms would be alleviated; but was again disappointed. And, being wearied out and despairing of any relief from the ordinary means used in such cases, I committed myself entirely to the Lord; being in much doubt whether my health would enable me to reach my home. At Boulogne, on my return, I was obliged to consult another physician; but to no purpose. And, when I returned to London, I was literally choking to death, and had to take to my room and to my bed. In this condition I was providentially relieved by a work being put into my hands, entitled "Consumption Curable," by Dr. Ramadge, the senior physician of the London Lung Hospital. After a cursory reading of the book, I was led to consult the Doctor, and was by him encouraged to expect entire recovery. He directed, as a principal means—medicine being only auxiliary—a tube to breathe through. I followed his advice, and experienced by its use, in the course of only one or two days, very essential relief. It was the first thing I had found to alleviate my symptoms in the least. It is now five months since I have been using the tube, and my recovery has been gradually progressing; and, on the first of January last, I resumed my labors as chaplain of the City Hospital, from which I had been laid aside for nearly one year: and, what is very remarkable, and speaks volumes for the tube, though I arrived in the city in October last, with the most unfavorable season before me, and have exposed myself to all weathers, (storms not excepted,) and have twice taken severe colds, which settled in my bones, I have not once had any cold to settle on my lungs or in the throat; although, previous to my using the tube, the slightest unfavorable change affected me most seriously.

The tubes are made of different materials, and are five feet long, and half an inch in diameter, furnished with a mouthpiece, and piece to contract the end to keep the air from rushing in and out too rapidly, and are used three times a day for the space of from four to six months, discontinuing its use under certain symptoms.

I would further remark, that Dr. Ramadge is a regularly educated physician, and has been for nearly twenty years in the London Lung Infirmary, and, for several years past, the senior physician. This is a public institution, and has been established, if I mistake not, about one hundred years, and is

under the patronage of the nobility and gentry of England. He assured me, again and again, that the use of the tube would do more to prevent consumption, and restore those who are consumptive, than any other means within his knowledge.

The Doctor has written a very able work on the subject, explaining the philosophy of his treatment, in which he shows the great benefit arising from inhalation in preventing consumption, by enlarging the volume of the lungs, and materially altering the shape of the chest, and also curing it in its incipient stages, and even after the top of both lungs have been very considerably ulcerated.

So very limited is the knowledge of Dr. Ramadge's work on the treatment of throat complaints and consumption in this country, although on the continent of Europe it has been translated into several languages, and so invaluable, in my humble opinion—for I am quite sure, under God, I owe my life to him—that I consider it an imperative duty I owe my suffering fellow-men to call their attention to it.

While in London, I was several times at the Hospital, and conversed with many of the patients, who all testified to the benefit of the tube; and, since my return home, I have recommended it to several, some of whom have found very great benefit. I shall be happy to show the tube, and also to furnish such other information as to the manner of using it, together with some general information on the subject, at my dwelling, No. 102 Grand Street, New York.

JOHN M. HOWE.

Shortly after my return from England, last fall, I proposed to the Rev. La Roy Sunderland the use of the tube, for the recovery of his voice, which he lost about seven years ago, by a severe bronchial affection. Mr. Sunderland thinks the use of the tube has strengthened the tone of his voice considerably; and, a few weeks after, published the following account of Dr. Ramadge's work:—

“PULMONARY CONSUMPTION.

“It is a dreadful consideration, that so large a proportion of the population of this country die yearly of pulmonary consumption. So formidable has this disease been considered to the successful exercise of the healing art, that it has justly, perhaps,

been denominated the *approbrium medicorum*. That it is a most fatal and very prevalent disease, we should be ready to infer, from the many nostrums advertised in the different papers for its cure, and this, too, in despite of the fact, so generally admitted in the medical world, from the days of Hippocrates, down to the present time, that, over the excavations formed in the lungs by tubercular phthisis, *medicine* has no power. Nevertheless, that multitudes should be so easily induced to hope for relief from this alarming malady, is not at all strange, when we consider the desire for health and life which is so natural to every human being. But it is humiliating to reflect, that such multitudes of our species should be so readily deceived, in a matter so important, and consequently that they should have their mortal existence shortened, as no doubt it is, in many cases, by the pills, syrups, and patent compounds, which are so freely administered upon their mistaken credulity.

“We are not sufficiently acquainted with the history of medicine, to form any probable estimate of the number of distinguished medical men who have advocated the curability of consumption. We are certain, however, that the number is very small. Mr. Charles Whitlaw, the celebrated botanist, we know, when he was last in this country, professed to cure consumption, in its incipient stages, by the use of his patent Medicated Vapor Bath. To that bath, the writer of this article has before acknowledged himself indebted, for a permanent cure of a most severe case of bronchitis, nor have we now any doubt but it may be used as an effectual cure for most of the diseases for the cure of which it is offered by the inventor.

“We published an extract from Dr. L. T. Warren, in our 74th number, in which he argued the possibility and safety of curing consumption by a surgical operation, opening the chest, and cutting away the diseased part of the lungs. However, we suspect that most persons would prefer the risk of death by a natural process, before submitting to be butchered in this way.

“Francis H. Ramadge, M. D., Fellow of the Royal College of Physicians, Senior Physician to the Infirmary for Asthma, Consumption, and other Diseases of the Chest, published a learned work in London, in 1836, on this subject; a copy of which is now before us; it bears the following title:

“Consumption Curable; and the Manner in which Nature, as well as Remediable Art, operates in effecting a healing process in cases of Consumption, explained and illustrated by numerous remarkable and interesting cases. To which is added a Mode of

Treatment by which the Development of Tubercles may be prevented in persons liable thereto, from hereditary predisposition, or a bad state of the system, induced by various causes.'”

“From the examination which we have found time to give this work, we offer it as our decided opinion, that the positions laid down by this author, are worthy of the highest consideration, not only by all who make any pretensions to medical science, but, also, by all who would relieve or prevent human woe. That Dr. Ramadge has succeeded in curing numerous cases of confirmed *phthisis*, is put beyond doubt or contradiction.

“We are not aware, that this work has ever been circulated to any extent in this country, and the importance of the subject, induces us to believe, that it will not be unacceptable to our readers if we here give a synopsis of the positions laid down by the learned author. To give a brief view of the *rationale* upon which he treats this disease, we must mention a few things which are well known to the medical practitioner, but it may be necessary to add them in this connection, that all may perceive how much importance may be safely attached to the new principles advocated in this work. Dr. Ramadge, it seems, has been Physician to the Infirmary above named for nearly twenty years, from which fact it is evident that he not only enjoys the confidence of the medical profession in England, but that he has had the best opportunities for becoming acquainted with the disease under consideration, both with respect to its causes and cure.

“The statements which follow, are compressed, as much as possible, from the work of Dr. Ramadge, which makes an octavo volume of some two hundred pages. We have taken the liberty of stripping his language from some of its technicalities, but we have suffered him to speak for himself, as far as his views could be expressed in so brief space.

“*The Cause.*”

“Consumption is caused principally by the pre-existence of latent tubercles in the lungs, and indirectly by inflammation of the lungs,—pleurisy, contagious, irruptive fever,—repelled eruptions,—badness and deficiency of food,—amenorrhœa, unhealthy locations,—affections of the abdominal viscera, (sometimes caused by drinking) spitting of blood,—constitutional syphilis, and many other disorders, whose influence in producing consumption, consists in the debilitated state of the body which they induce. Depressing passions produce phthisis, as does

every habit which serves to compress the chest and circumscribe the action of the pulmonary muscles. It is transmitted from parent to child.

"The genuine marks of this sad heir-loom may be traced in the sanguine, yet delicate hue of the countenance, the unusual brightness of the eyes, the confined and narrow waist, the sharp projection of the shoulder blades, the proglity of the bony structure of the body, long neck, weak voice, and great sensibility.

"Symptoms.

"Physical signs of this disease. The attack is in many cases so deceitful, that before the patient is aware of his danger, his case has become desperate. A slight cough is generally the first symptom, at first, perhaps, hard or dry, but this is succeeded by some degree of weight, and slight pain in the chest—difficulty of breathing—general weakness—an accelerated pulse—a sense of chilliness along the spine, commonly experienced towards noon—augmented temperature of the body, on the approach of evening—and, finally, by perspiration, which usually comes on profusely after midnight, and greatly attenuate the system. When spitting of blood occurs, with the above symptoms, or when the matter expectorated assumes the appearance of pus, we have strong reasons for suspecting pulmonary consumption.

"The Cure.

"Dr. Ramadge says, that, after the careful examination of, at least, three thousand dead bodies, and after having had under his care many thousand consumptive cases, his fixed opinion is, that ulcers of the lungs are most effectually cured, and a fresh formation of tubercles prevented, by an *expansion* of the vesicular structure of the lungs.

"This expansion is brought about by breathing through a tube, about five feet in length, made of German silver, or of gum elastic, with fixtures at the end in which the holes are of such a diameter, as to suit the *particular case* of the patient. Those tubes we have seen, have the holes in the fixtures, which are made of lignumvitæ, or ivory, about one-eighth of an inch in diameter. The perforation in the gum elastic is kept extended by wire, otherwise it would soon close up.

"Through this tube the patient is directed to breathe, before his meals, three times a day; at first five minutes, and this time is gradually increased to thirty, and then lessened again to five, according to the strength of the patient.

“Remarks.

“1. Asthmatic persons (those whose lungs are emphysematous,) however long exposed to circumstances that favor the tubercular development in the lungs, never become consumptive.

“The difficulty which such persons experience in breathing, gives to the lungs that *expansion* and volume, the want of which is the cause of consumption. The author gives numerous cases of persons cured of consumption, by asthma, which was superinduced by artificial means.

“2. No small number of catarrhal and asthmatic disorders are the sequelæ of consumption more or less perfectly cured. In more than one-fourth of the subjects of these disorders examined after death, are found cicatrizations indicative of cured consumption.

“3. When we consider the peculiarly delicate conformation of the lungs, and their immediate susceptibility of every alteration in the atmosphere, we at once see how essential it is, in order to maintain a healthy action and proper configuration of the chest, that our inspiration should be uniformly deep and full; but from the great inequality of atmospheric pressure, resulting from the constant fluctuations of the weather, as well as from the dress and postures of the body, the depth and fulness of the inspiration are exposed to frequent diminution, and that play of the chest which is as requisite to a healthy state of the lungs, as exercise is to muscular development, is consequently subject to repeated checks.

“4. Hence, it is almost an invariable law, that pulmonary consumption commences in the superior lobes of the lungs—owing, doubtless, to the small extension of the upper ribs, as compared with the more complete movements of the lower ones.

“5. From what is stated above, will be seen the pernicious effects of tight lacing, and the danger to which those expose themselves who compress the chest in any way, either by their dress, posture of sitting, working, &c. And hence, also, the fact is accounted for, that savages have never been known to die of consumption; but it is said that tame hares do die with this disease, while those in a wild state are never effected with it. And, to show the benefit of exercise, it may be added, that swine, proverbially the most indolent of animals, are also the most subject to tuberculous diseases: hence, the derivation of the word *scrofula*, from the Latin *scrofa*, a swine; and consumption and scrofula are identically the same, both resulting from

the presence of tubercles. The race horse and the hunter, as long as they are kept employed, never have tubercles in the lungs. The exercise of running tends to give that deep and full inspiration which is so necessary to expand the volume of the lungs, and give full scope to the pulmonary muscles.

"And following up the tenor of these remarks, we shall find that the benefit usually derived from a sea voyage, or change of air, is not so much due to the removal from an impure to a purer atmosphere, *per se*, as to the stimulating effects produced on the breathing organs, and the increased muscular powers of the chest, on which pulmonary dilation is, of course, dependent.

"Compare the expanded chest and muscular frame of the mariner, with the emaciated figure, contracted chest, and general want of vigor observable in the artizan of manufacturing cities, for proof on this subject.

"6. Tubercles are less frequently met with in the muscles of voluntary motion than elsewhere; from this fact we infer, the necessity of artificial means to increase the action of the lungs, and thus arrest any new development of tubercular eruptions.

"7. Tubercular disposition is a specific vitiated secretion, arising from an aberration of nutrition. And the author gives a clear and full view of the manner in which tubercles undergo absorption in their early state, and their insulation, even in a state of crudity, as also the mode of union and cicatrization of ulcerous excavations in the lungs.

"8. The mere *expansion* of the lungs tends indirectly to remove congestion of the liver, and also of the stomach, spleen, pancreas, and intestinal canal, all dependent on the more free circulation of the blood in the former. The biliary, as well as the great salivary secretion, is hereby promoted to a healthy activity.

"9. Grief, as well as protracted indisposition, is productive of diminution of the chest; the general debility causing local muscular weakness, more particularly in the muscles of inspiration.

"There is no possible method for healing phthisis, than by bringing their surfaces in opposition, since, unlike other ulcers, they never granulate.

"10. Restoration by means of inhaling through the tubes before described, is not to be expected, only when the cavities are confined to the summit of one or both lungs. When they extend into the lower lobes, relief may, indeed, be given, but it would be unreasonable to expect a perfect cure.

"There is an appendix to the work, in which are given a large number of cases of consumption, which were cured on the principle advocated by this author, accompanied with a number of colored plates exhibiting the appearance of the lungs after death, of persons who had been cured of this disease."

The foregoing articles, together with the communications, made verbally, of Dr. Ramadge's treatment of consumption, have awakened considerable interest in the minds of many—and I have received numerous applications for copies of his work, and for information upon his treatment, together with several letters daily, making many inquiries; to answer which has occupied much of my time, and also put me to considerable expense. These circumstances, together with a belief (founded not in ignorance, but from painful experience and some observation) that Dr. R.'s treatment, strictly speaking, is philosophical, and calculated to do more real good in preventing consumption in those predisposed to it by a bad state of the system and a contracted chest, by enlarging it, and improving the general health, and in restoring those in the incipient stages of the disease, and even after tubercles, are formed in the summit of the lungs—and, also, affording *relief* to those whose disease is beyond recovery—have induced me to publish, at my own expense, the following abridgement of his work, firmly believing, that it will be conducive of spreading such information as is of the highest importance to the public generally, relative to that most dreadful scourge of so large a proportion of the community—consumption;—and if, by the blessing of God, it is rendered the means of saving some, my object will be fully answered.

JOHN M. HOWE.

New York, March 14, 1839.

CONSUMPTION CURABLE.

CHAPTER I.

CAUSES OF CONSUMPTION.

A COLD, resulting either from imprudent exposure to the air when the body has become heated, or from the wearing of too light and insufficient clothing, is deemed one of the most general and powerful causes of consumption. Yet, in many instances, I am persuaded that the real and efficient cause is to be found in the pre-existence of latent tubercles in the lungs ; and when these become softened by general indisposition, produced by the action of the cold, phthisis ensues. Frequently, indeed, the irritation occasioned by latent tuberculous disease will determine a catarrh, and the patient will be treated for this complaint without any suspicion on the part of the medical attendant of the real state of the case. Should the catarrh continue, the consumptive disease masked by it, will be effectually cured ; and if a cavity has been formed, this will be obliterated by the increase that takes place in the volume of the lungs. At other times, tuberculous deposits will be found insulated, and rendered innoxious, as I shall hereafter explain, by the secretion of black pulmonary matter. I have verified these facts by numerous autopsies, and it is very recently, that, opening the body of an asthmatic individual, who died at the advanced age of seventy, I found distinct traces of a former consumptive state, which, having been arrested by the supervention of asthma, had existed unknown to himself, his family, or his physician. Still, where an hereditary tendency to consumption exists, or the constitution has been previously debilitated, taking cold is most certainly a frequent exciting cause of pulmonary phthisis. The transmission of this disease from parent to child, is a melancholy fact to which I have already adverted. The generic marks of this sad heir-loom may be traced in the sanguine, yet delicate hue of the countenance, the unusual brightness of the

eyes, the confined and narrowed waist, the sharp projection of the scapulæ or shoulder blades, and the fragility of the bony structure of the body, not unfrequently united with a disposition to an unhealthy stoutness. In laying down the causes of consumption, it becomes requisite to distinguish betwixt those which are direct, and the far greater class commonly confounded with them, but which in point of fact are indirect. Amongst the latter, may be enumerated inflammation of the lungs, pleurisy, contagious eruptive fever, repelled eruptions, badness and deficiency of food, amenorrhœa, unhealthy localities, affections of the abdominal viscera (sometimes caused by excessive drinking,) spitting of blood, constitutional syphilis, and a long list of disorders, whose sole influence in producing consumption consists in the debilitated state of the body they induce. I have said that it is requisite to distinguish betwixt the direct and indirect causes of consumption, not that there are any that can with propriety be termed direct, but in order to impress thoroughly upon the mind the grand truth, that phthisis is for the most part, the sequence of debilitated bodily health alone. When the general health becomes impaired, a total change takes place in the fluids and secretions of the body, and there is consequently an aberration of nutriment: on this, the formation of tubercles soon follows.

Laennec gives an interesting account of the effect of depressing passions in producing phthisis, in the case of a religious association of females, all of whom became consumptive from the ascetic spirit which regulated their minds, rather than the austerity of their diet. Confinement, most likely, contributed to this result. Since this society was bound by no vow, Laennec persuaded the members, as soon as consumption was clearly indicated in each, to change to another place of abode, and he expressly declares that nearly all who took his advice recovered. The possibility of consumption being cured is even yet denied by many practitioners, although the light of truth is beginning to dawn upon them; and yet the above relation is a proof, that, some years previously to the appearance of the present work, the greatest medical authority on the disease had stated opinions similar to mine. A parallel circumstance has occurred, in the course of my practice, within the last two years. Two young ladies were removed from a school in the neighborhood of London, in order to be put under my care for consumption. I ascertained that ten or twelve of their school-fellows had sunk under decline, within the preceding twelve-month: and, on inquiry, I found that the only exercise they were allowed, and this but seldom, was the prim, formal walk, two by two; which pernicious and false decorum, it is to be hoped, will soon be banished from these establishments.

To such an excess were the fantastical restrictions of the school carried, that the poor girls were not allowed to hold their heads erect, or maintain a proper carriage, being told that so to do was a sign of

pride. By this enforced humility, conjoined with the radical error—want of exercise—both my young patients not only stooped, but, I am sorry to add, had contracted chests, and lateral curvature of the spine.

I should mention the sequel of Laennec's account, in order to establish more fully the coincidence between the circumstances, and to direct attention to the ill effects of such absurd confinement. He proceeds to narrate, that he witnessed, in the course of ten years, two or three renewals of the religious society, by the admission of new members to replace the loss of the old ones; and that the only individuals attached to it, who withstood its depressing influence, were the superior, the grate-keeper, and the sisters who had charge of the kitchen, the garden, and the infirmary. In addition to the exercise given by these offices, the same individuals were called upon, occasionally, to visit the city on the concerns of the establishment. This narrative requires no comment.

Many writers are of opinion, that various thoracic diseases are fruitful causes of consumption; but I am satisfied that this supposition is groundless. It is merely owing to the loss of health entailed by them, that the development of those accidental productions, called tubercles, takes place. To enumerate the indirect causes of consumption, would be endless; for, in fact, whatever is capable of impairing the constitution, is liable to produce a phthisical state. Thus, mental anxiety, or any depressing passion long continued, as well as chronic diseases of various kinds, engender a consumptive predisposition. In this country, the frequency and prevalence of this disease are attributed, in no small degree, to the great and sudden vicissitudes of atmospheric temperature, and the moist nature of our climate. These, as I have already explained, operate powerfully in effecting changes in the human body, more or less calculated to affect the general health; especially in those who are naturally of a delicate make, and who inherit a tendency to scrofula. Particular employments, in which dusty particles and noxious fumes are inhaled, have long been regarded as producing this disease; but experience has taught me that some catarrhal affection, and not consumption, is what most frequently supervenes, and that the former complaint is a preservative against the latter.

CHAPTER II.

SYMPTOMS OF CONSUMPTION.

LOCAL AND SYMPATHETIC—PHYSICAL SIGNS OF THE DISEASE.

It has long been acknowledged, that the symptoms on which practitioners generally rely in the incipient stage, as indicative of consumption, are extremely variable and uncertain. Its attack, indeed, is, in many instances, so deceitful, that before the patient is in the least aware of his danger, the case has become desperate. Again, it seldom happens that pain, or any other uneasy sensation, is felt in the part which is well known to be the primary seat of the disorder, although it results from tubercles, disseminated at first in the substance of the upper part of one or both lungs. At other times, we see cases in which its progress is latent and altogether unheeded; still, a slight cough is generally the first symptom, and this is attributed to some uneasiness in the throat, produced by a common cold. After a time the cough increases, and from being either hard or dry, is followed by the expectoration of a little mucus often devoid of color, as in common catarrh. This is succeeded by some degree of weight and slight pain felt in the chest, along with difficulty of breathing, general weakness, and an accelerated pulse, which seldom ranges below 90; during the hot stage of the hectic fever, it is generally 120. A sense of chilliness along the course of the spine, commonly experienced towards noon, is the next symptom; this is followed by an augmented temperature of the body on the approach of evening, and finally by perspirations, which usually come on profusely after midnight, and greatly attenuate the body. When spitting of blood occurs with the foregoing symptoms, or when the matter expectorated begins to assume the appearance of pus, we have strong grounds to suspect the presence of pulmonary consumption. The occurrence of cough in any case, in which the general health has been impaired, ought to be regarded with no small suspicion. Cases are not wanting in which the disease manifests itself most irregularly. For instance, the usual characteristic symptoms are not uncommonly preceded, for a short time, either by mesenteric enlargement, aphthæ, severe diarrhœa, amenorrhœa, or by an affection of the larynx, attended with a slight alteration of the voice. Though in the early stages there may be some doubt as to the existence of phthisis, without the aid of physical signs, there can be however little chance of mistake in the advanced stages. As soon as hectic fever is fully established, the wasting of the flesh becomes remarkable, and rapidly increases, if perspiration, diarrhœa, and expectoration have been abundant. To me, who have been for so many years

accustomed to see this disease daily, the very look of the patient is in most instances sufficient.

The nose and cheeks assume a striking prominence, and the bluish paleness and emaciated appearance of the face are remarkable, when contrasted with the suffused, and at other times, circumscribed flush, which quickly goes and comes, together with the shining white or pearl-blue appearance of the conjunctiva of the eyes; the shoulder-blades project, so as to be likened to wings, while, at the same time, the chest is narrowed in its lateral as well as transverse diameter, in consequence of the increased convexity of the ribs, which has a greater inclination downwards, and which thus likewise admits of the nearer approach of the sternum towards the back. On the upper and anterior part of the chest, the intercostal spaces appear widened and depressed, and the belly is at the same time flat and retracted;—the fingers seem lengthened, and the joints of these, as of other parts, are apparently enlarged; incurvation of the nails takes place, and where large tuberculous excavations have long existed, an actual enlargement of the ends of the fingers is observable; the neck seems elongated and impeded in its movements, and the angles of the lips are drawn back, and produce a bitter smile.

Phthisis is not difficult to be recognized in that stage in which the tuberculous mass, becoming softened, finds an opening into some of the neighboring bronchia, and finally leaves a cavity, whose existence is clearly indicated by its characteristic symptom—pectoriloquy. This peculiar phenomenon is generally first heard in the upper portion of the right lung, when the tubercles which first appear there are softened down; and it may be detected by applying the ear over the uppermost ribs, or over the infra-spinal fossa of the shoulder-blade. When the voice of the patient, on applying the ear either alone, or armed with the stethoscope, to that part of the chest corresponding with the supposed seat of an excavation, is heard much louder than natural, and seems to issue uninterruptedly from within, with a thrilling sound, it constitutes what is termed a satisfactory pectoriloquy, and is an indubitable sign of a tuberculous cavity; the contents of which we even hear not unfrequently by the same method of diagnosis, agitated by the action of coughing. Whenever the walls of an old, and nearly emptied excavation, are dense and firm, a severe fit of coughing gives to the ear a metallic resonance, or a sound as of some empty glasses slightly shaken against each other. If the excavations are numerous, and communicate one with another, the liquid matter within is heard changing its situation every time the patient breathes.

The plan I always pursue, and indeed a most ready one, to distinguish consumption from pulmonary catarrh, with which it is liable to be confounded, is to apply the ear to the posterior part of the chest, about two or three inches below the inferior angle of the scapula. Should the respiration be almost natural, or slightly puerile here, we

may at once and early proclaim the case to be phthisical, if the patient have a troublesome cough, though he may present few of the other common symptoms belonging to a consumption. Except near the fatal termination of the disease, when the great emaciation, confirmed hectic fever, diarrhœa, and other bad symptoms manifest themselves, we have no physical sign of any bronchial inflammation; save in cases in which some progress towards recovery has taken place. When the sonorous rattle occurs before the lower lobes of the lungs are affected with tubercles, it is to be considered as a highly favorable symptom. In other cases, however violent and long the cough may be, auscultation gives us no signs of the catarrhal state which precedes and follows complete recovery. Having daily opportunities of seeing new consumptive cases, I readily come to a conclusion, by the absence of catarrh, that they are undoubtedly consumptive, without taking the trouble to ascertain the state of the upper part of the chest; for if an individual coughs up blood, or muco-purulent matter, is subject to chills, accessions of fever, and night sweats, wastes away and complains of debility, and no catarrh is heard in the inspirations, we may be perfectly satisfied that tuberculous cavities exist. When there is a cough which is not influenced by remedies, and the sympathetic signs of consumption and the auscultatic results beneath the clavicles are somewhat unsatisfactory, while the lower part of the chest has the murmur of respiration almost natural, I should then, satisfied with the experience derived from exploring the chests of several thousand consumptive patients, unhesitatingly pronounce the case to be genuine consumption. In numerous instances, much to the surprise of my pupils, and those practitioners who have witnessed my practice, I have pronounced a patient to have tuberculous disease in the superior lobes, while he exhibited no look indicative of such serious illness, but had merely an annoying cough. This prompt decision, after I have ascertained by the ear the sanity of the respiratory murmur, and absence of bronchial irritation in the inferior part of the chest, has generally proved correct. In some instances, obscure respiration in the upper part of the chest, arising from tubercles and pulmonary induration; in others, a tuberculous cavity, affording the most perfect pectoriloquism, has been ascertained; and, on closely questioning the patient, the symptoms he has detailed have usually been corroborative of what might be termed, if we were guided by the apparently unimpaired state of health, latent phthisis.

CHAPTER III.

MEANS BY WHICH TUBERCLES IN THE LUNGS MAY BE PREVENTED.

[The remarks of Dr. Ramadge, together with the cases which he describes, under this head, are too diffuse to be extracted here. The following is the substance of them :]

The advantages derivable from short excursions, or still better, voyages by sea, always invited my recommendation when circumstances rendered them available. Impregnated as the sea breezes are with saline particles, they act, I conceive, as stimulants of the lungs to deeper and more frequent inspiration, and thus forward the enlargement of the chest, a point to which I have more than once adverted, in the course of this work, as of primary importance. They may also be regarded as possessed of a tonic power, bracing and invigorating the surface of the body, and, by continuous sympathy, exerting a beneficial influence on the viscera, especially those connected with the digestive functions. Another strong inducement to recommend a sea voyage, in the case of persons laboring under incipient consumption, is the probability of the patient's having his chest expanded in the manner described above, and thus increasing the chances of his contracting some variety of catarrh—hence bidding defiance to phthisis.

Of the different kinds of exercise I would particularize running and riding, as the most calculated to forward the purposes of prevention ; indeed, as the best general prophylactics. After a quick and brisk run, the respiration becomes frequent and deep, and the panting that ensues by exercising the muscles of the chest, favors a healthy development of that part, and enlarges the volume of the lungs. It has been my universal practice to recommend a constant attention to this healthy exercise, in those schools I have been in the habit of attending, and to advise the preceptors to promote it by every inducement within their power ; and I have never been disappointed in the results experienced. Nor are its happy effects confined to the mere expansion of the chest ; by the greater portion of air thus brought into contact with the venous system, the blood becomes more effectually decarbonized, the animal heat increased, the action of the heart more vigorous, and the multifarious secretions are carried on with greater energy.

Riding, which stood so high in Sydenham's estimation, is an exercise of no mean value, for the self-same reasons, with this advantage, that it yields all the good effects of the former, unattended with its fatigue. To those, however, in whom consumption has decidedly appeared, the benefit derivable from this mode of exercise may, perhaps, be enhanced by the tendency to an upward motion imparted to

the lungs, thus disposing to apposition the diseased surfaces in the upper region of the chest.

A strong proof of the advantages of exercise may not unwarrantably be sought for in the probable exemption of man, in a savage state, from the ravages of this disease. Although various disorders are mentioned by travellers as having fallen under their observation, I do not remember, in the course of my reading, to have met with any notice of consumption, recorded by those who have mingled with the savage tribes of either the old or the new world; at least, amongst the more active races of uncivilized man. Indeed, it would be wonderful were the case otherwise. Dependant for their subsistence on incessant vigilance and vigorous exertion; constantly engaged in the toils of the chase, or animated to activity by the animosities ever subsisting between neighboring tribes, however they may lapse occasionally into habits of sloth and indolence, their life from the cradle to the grave must, generally speaking, be calculated to call forth and perfect every bodily energy. Free from the restraints which are the unavoidable consequence of a state of superior intelligence,—neither confined to the manufactory, nor chained down to the desk of the counting-house, untrammelled by dress, and uncramped by the various devices to which either fashion, or the force of habit, renders us subservient despite the dictates of reason,—the savage possesses at least the uncontrolled use of his limbs; and the symmetry, usually observed in him, is perhaps the best index of the health he enjoys. If, too, we extend our course of reasoning to the inferior race of animals, and observe the differences existing between them and their wild and domestic condition, we shall find a singular analogy betwixt them and man. To go no further than the harmless creature, the rabbit, I have found, in the course of my researches in comparative anatomy, that this animal frequently dies of consumption, in its tame state; but I never met with an instance of the kind in the wild rabbit. Perhaps the benefit of exercise cannot be better exemplified than by way of contrast. Swine, proverbially the most indolent of animals, are also the most subject to tuberculous disease; hence the derivation of the word *scrofula* from the Latin *scrofa*, a swine; and consumption and scrofula are identically the same, both resulting from the presence of tubercles. To pursue the analogy, another strong instance of the force and good effects of exercise is observable in the race-horse, the hunter, and indeed in all this class that are subject to frequent and active exertion. These seldom or ever, I believe, are found to have tubercles in the lungs, so long as they are kept constantly employed. Many illustrations of this nature might be adduced, but sufficient has been said to enable the reader to extend this comparative enquiry, and to confirm the high value which I set on the effects of judicious and well-regulated exercise.

[And to the foregoing, Dr. Ramadge adds a number of interesting cases, fully illustrating the truth of his remark, but it would swell this pamphlet to too large a size to quote them here.]

CHAPTER IV.

TREATMENT OF CONSUMPTION.

THERE are but two modes by which we can hope to cure this disease: the one is by rendering it chronic, and the other by artificially enlarging those portions of the lungs which are pervious to air. In the first, we endeavor to effect an absence of constitutional disorder; but, after this change is effected, there may still remain for an indefinite period one or more cavities uncicatrized, with lining membrane, partly semi-cartilaginous, or of such condensed and insensible structure as to be productive of little inconvenience, if we except occasional cough and some hæmorrhage, which last occurs at long intervals, and rarely to a great extent. In the second, there is produced what is invariably seen when nature or art has effected a cure—an enlargement of the vesicular structure of the lungs, and subsequently a gradual healing of the tuberculous excavations.

It has always been my great aim to put an end, as early as possible, to the symptoms of hectic fever. This I have successfully accomplished, in many instances, by employing moderate anti-phlogistic means; among which, I may first mention general and local blood-letting.

In consumption, particularly in its early stage, I find patients generally say they are strengthened, rather than weakened, when four or five ounces of blood are taken at intervals of a few days. After the constitutional fever has been in this manner interrupted, if it seems shortly after disposed to return, we may again ward it off by applying six or eight leeches on the summit of the chest, just beneath the clavicles. In my opinion, they are best applied on the upper part of the chest, since it is there that the tubercular affection first commences. By thus alternating the general and local bleedings, we husband the patient's strength, while at the same time we mitigate the most distressing symptoms of his disorder. Cases are at times met with, in which the lancet may be used with some degree of freedom. For example: when signs of pleuritic or pneumonic inflammation are present, and when hæmoptical discharges are attended with much oppression, pain, and heat in the chest. I have not seen it noticed, that, in the absence of acute inflammation, the blood taken from the arm of consumptive persons is peculiar in its crassamentum; it is never cupped, and its upper surface has a somewhat greenish, semi-transparent, gelatinous appearance, with yellow filaments here and there interspersed. This extraordinary and characteristic state of the blood has been for years

noticed by the attentive apothecary, so long attached to the Infirmary for Diseases of the Chest. It is indicative of an actual and inappreciable change in the circulatory fluid. When the muscular parts and integuments about the chest are greatly attenuated, local bleedings are best accomplished by leeches, rather than cupping—the tediousness of the former may be obviated by picking them off when they are tolerably full. Instead of fomenting the bites, as is customary, which practice exposes the patient unnecessarily to cold, I advise some lint or old linen to be immediately applied, and not removed for at least half an hour; by this means, the blood absorbed acts as a fomentation to encourage a sufficient effusion.

I have ascertained, by auscultative examination, that when sanguineous sputa make their appearance in chronic or latent phthisis, they not unfrequently result from inflammation of the lower lobe of one or both lungs, causing an unusual degree of congestion in parts remaining unhealed; my advice is, therefore, that a careful exploration of the chest be made, both by the ear and percussion, in all cases, however unequivocal be the common symptoms of inflammation of the substance of the lungs. When we have fully satisfied ourselves that the spitting of blood is not the result of any primary change in the vessels coating tuberculous excavations in the summit of the lungs, but that it is owing almost wholly to some engorgement, or sympathy with portions of the lung beneath in a state of actual inflammation, it will be found that an effective abstraction of blood, to the amount of fourteen or sixteen ounces, will assist in bringing the patient in a short time to his wonted state of health. Should this be insufficient, the bleeding may be advantageously repeated after a couple of days. But it must be premised, that any active treatment of this kind employed without discrimination, particularly when much tuberculous disease is disseminated through the lungs, and has formed numerous cavities which have seriously and manifestly impaired the general health, would in most cases be productive of the greatest evil, and possibly soon give rise to œdema of the lungs, or some other watery effusion elsewhere. Few consumptive cases terminate fatally, without being preceded by some dropsical state of the lungs. This generally occurs when the feet and legs begin to swell, and is a period too when leeches even are rarely admissible.

Inhalation.—I am well aware that many objections may be started to this practice from prejudice, or inefficient observation. Strange to say, the principle on which this mode of treatment operates beneficially, appears to me quite unknown to medical men. It is supposed, that the inspiration of medicated vapors has in many instances proved useful by allaying cough, and by producing some healthy and unexplained change in diseased parts of the lungs, as well as on such adventitious surfaces as are formed after the softening, or discharge, of tuberculous matter: but the permanent advantages which inhaling is

capable of affording, are for several reasons unsuspected by the generality of practitioners. First, because the period, during which persons are directed to inhale, is generally too short to produce either a catarrhal or an enlarged state of the lungs, one of which conditions is absolutely necessary in order to suspend, or cure consumption: and, secondly, the apparatuses employed for this purpose are not constructed scientifically, so as to facilitate those physical changes which it is desirable the chest should undergo. Proper inhalers ought to be so arranged, as to offer some slight impediment to free expiration; which can be effected by having the vessels which are to contain the materials to be inhaled, large enough to hold about two quarts of liquid, and with covers perforated by two apertures; one of very small size, serving as an air-vent, the other furnished with a flexible or straight tube of narrow diameter, and at least five feet long. For the end of the tube destined to be received between the lips, we may have mouth-pieces formed of ivory or bone, each of them having an aperture of a different size. The length of the tube will save the patient's countenance from being heated by too close an approximation to the body of the apparatus, when filled with warm water; besides, it contributes, together with the small air-vent, to retard the free egress of air from the lungs, which, I shall presently show, constitutes in no small degree the great virtue of inhalation.

An extraordinary, but most undeserved reputation is bestowed on various substances, mechanically received into the lungs in a state of vapor. Among these I may mention tar, iodine, chlorine, hemlock, turpentine, and many other articles of a stimulating, or sedative nature. I attach little or no importance to any of them. If benefit is derived, it is, in almost every instance, in consequence of some such effects as the following:—Pulmonary expansion, to a degree sufficient to exert an influence in bringing into contact the surfaces of those early cavities which are almost invariably formed in the summit of the lungs;—pulmonary catarrh, or its common consequence, a vesicular emphysema—in both of which the lungs acquire an unusual magnitude; in the latter more especially.

Neither perfect recovery, nor indeed exemption from the danger of relapse into a consumptive state, is found to occur, except in very rare instances, unless the pulmonary organs become naturally, or artificially, voluminous; which not unfrequently happens by the supervention of some catarrhal state of the larynx, trachea, or bronchial tubes. It is a most fortunate circumstance for some affection of this kind to occur early, as it never fails permanently to arrest this most fatal disorder. When the lower lobes of the lungs are entirely free from tuberculous matter, (which is often indisputably the case for a considerable period, unless there be strong hereditary predisposition) and though there exist, at the same time, cavities in the superior part of one or both lungs, clearly indicated by perfect pectoriloquism, there is almost a

never-failing hope of recovery to be entertained, provided an emphysematous sound can be heard. In fact, I never knew a consumptive person who did not lose all his formidable symptoms and regain health, when an emphysematous or a semi-asthmatic change had early taken place; and, likewise, I never knew an individual to become consumptive who was subject to chronic catarrh, or to any species of asthma. It is from long consideration of these facts, that I interfere but little with any catarrhal inflammation which may show itself in the midst of consumptive symptoms, for I well know that it will gradually supersede all these.

I may here remark, that cavities in the upper part of the chest are never healed, unless the pulmonary tissue be expanded in their neighborhood, or in the other lobes of the lungs. In such case, I have repeatedly listened to some bronchial inflammation which has fortunately taken place near to those cysts, which are left when tuberculous matter has been removed by absorption or expectoration. I have been truly gratified to hear the well-marked pectoriloquy gradually become less distinct, till, together with the constitutional symptoms of phthisis, it has been at last entirely lost, and nothing has remained but the dry *râle* of enlarged air-cells, slight catarrh, and a little absence of respiratory murmur in the place before occupied by tubercles.

Should there be catarrh in the superior bronchial tubes, of a duration sufficiently long only to heal ulcerations and cure the patient, he may be again attacked by consumption, months or years afterwards, if there be any cause assisting to impair the general health; but never can this relapse happen, if the bronchial tubes be subacutely inflamed for a period sufficient to produce habitual asthma, more or less severe. Half of those, which are commonly regarded as cases of catarrhal asthma, originate in consumptive disease whose progress has been arrested by the supervention of that affection; but in which neither fresh crops of tubercles, nor hectic fever, are to be apprehended. Any individual indeed having asthma, from whatever cause, is as perfectly exempt from consumption as he who had been consumptive, but has afterwards had his disease merged into asthma. In a word, it may be confidently affirmed, that no asthmatic person need ever fear becoming consumptive.

In order to promote expansion of the aerial tissue of the lungs, it is my usual practice, in the absence of catarrh, and when congestion in the chest and the symptoms of hectic fever have been diminished by small general bleedings, repeated at proper intervals, or by the application of leeches over the second and third ribs anteriorly, to advise inhalation as soon as possible.* There are few cases of incipient consumption but will be rapidly improved by this treatment, steadily pursued. The disease being thus checked, the same changes will follow which

* Suitable tubes, for this purpose, may be had of J. M. Howe, 102 Grand Street, New York.

are attendant on catarrh. The nodules of unripe tubercles will become innoxious in consequence of being surrounded by black secretion, or what has been called black pulmonary matter; and small cavities, already formed, will have their surfaces soon brought in contact, so as to heal by what surgeons term the first intention. It is, we must own, preferable to effect pulmonary expansion by sure artificial means, rather than to depend upon the uncertain production of catarrh. And there is another point gained, inasmuch as recovery takes place unaccompanied by the cough, or difficulty of breathing, generally attendant on those cures which Nature herself now and then accomplishes, by introducing this less fatal, yet distressing complaint. Inhaling, performed two or three times daily, for half an hour each time, will in the space of a few weeks work a wonderful change on the chest; externally the muscles concerned in respiration will be manifestly enlarged, and the bony compages of the chest, both before and laterally, visibly increased; whilst, at the same time, the natural respiratory murmur will be heard internally, far more distinct than ever. Such has been the increase of size which the chest, in young persons especially, has undergone through the exercise of inhalation, that I have known individuals, after inhaling little more than a month, require their waistcoats to be let out. It is in fact incredible to one who has never been at the pains to measure the chest, or examine its shape, what an enlargement it acquires by the simple action of breathing for the time above stated, backwards and forwards, through a narrow tube of a few feet in length. I have several times found, on measurement of the chest, that its circumference has increased, within the first month after inhaling, to the extent of an inch. I here speak of patients not arrived at adult age. Though I attach but little virtue to the substances that are inhaled, still, as we find patients prefer receiving into their lungs something having sensible properties to pure atmospheric air, I recommend a handful of hops, ether, a little vinegar, or a table-spoonful of spirits of turpentine to be added to the warm water in the inhaler. Every impediment to the free action of the ribs is to be guarded against by loosening whatever, in the way of dress, is at all likely to confine them; and it would be advisable too for the patient, if strength allows, to inhale at times in a standing position, as the diaphragm will then descend more easily and deeply, and of course allow the lungs more room to expand.

There are cases in which inhalation is contra-indicated; for instance, in dilatation, or hypertrophy of the heart, severe mucous catarrh, general emphysema of the lungs, pleuritic or pneumonic inflammation, hæmoptysis, or latent consumption of long standing.

It is to be discontinued, at least for a time, should there arise distressing head-ache, or much internal thoracic soreness. When it agrees well, it can be safely and most beneficially used for six months, or even longer. By this time, besides a removal of every consumptive symptom, a permanent enlargement of the chest will have taken

place, proving a perfect safeguard against the recurrence of any future attack.

No permanent benefit is to be expected from this remedy, when the inferior lobes of the lungs contain cavities, or are studded with tubercles : yet, even in this unfavorable state, I have known relief arise, and surprising prolongation of life ensue, from its employment. I have individuals under my care, at this moment, in whom one lung is almost useless from extensive tuberculous disease, and with even well-marked pectoriloquy on the top of the opposite lung ; still, from having the rest of the lung on this side in a satisfactory state, and thus being partially susceptible of the influence of inhalation, the progress of consumption has been arrested ; and, in more than one instance, the relief afforded by inhaling has enabled the individual to attend to the duties of his calling—of course, no very onerous ones. Indeed, I shall feel happy to introduce any of my readers, who may entertain a desire to see such remarkable instances of the virtues of inhalation, to these patients of mine.

Before I was aware how materially the lungs can be enlarged by simply respiring through a long tube, of such diameter, I was induced some years ago to try various means for producing pulmonary catarrh, or some corresponding affection, in the great air-passage vulgarly called the wind-pipe ; knowing well what an excellent agent such an affection is for expanding the chest, removing speedily well-marked symptoms of consumption, and, in a word, destroying altogether the tuberculous tendency. For this purpose, as in the heat of summer and the early part of autumn, we rarely meet with cases attended with a catarrhal complaint, one of my expedients was to oblige the patient to breathe twice or thrice a day atmospheric air, made cold by artificial means. In more than one case I succeeded in producing a catarrh, which led to the recovery of the consumptive patient. I have, on several occasions, dismissed those in-patients of the Infirmary for Diseases of the Chest—the wards of which are heated in winter so as to imitate a moderate summer temperature—whose consumptive state seemed to be but little relieved ; but, owing to their going at once from the warm atmosphere to their own abodes, where perhaps some of them were badly secured against cold, or indeed owing perhaps to their imprudent and thoughtless exposure to the open air, they have caught a severe cold of a catarrhal nature ; and this, I can assure the reader, has alone effected a cure in some who have had tuberculous excavations of ancient, as well as recent date. I subjoin a case, in which will be seen the value of a catarrhal affection in removing, or affording perfect security against consumption.

CASE VII.—A young man, a cutler by trade, having lost three brothers by consumption, came to my house in the summer of 1827, seeking to be relieved from symptoms similar to those which he had observed in them during their illness. He stated, that the first indication of his

complaint appeared after he had had a severe attack of rheumatism, which was with difficulty removed, and which left him much debilitated. When I first saw him, he computed that his cough, which was soon followed by a discharge of blood from the chest, had existed four months. He stated, too, that he had early placed himself under medical advice ; but that, in spite of various medicines administered for his cough, the spitting of blood, periodic fever, profuse perspirations at night, and occasional diarrhœa, in short, all the unfavorable symptoms seemed daily to increase. The moment I saw him, his countenance bespoke the nature of his malady ; and a few questions put to him soon confirmed my supposition—that he had all the common symptoms of consumption. On exploration of the chest by the naked ear, and by the stethoscope, I ascertained the existence of a cavity in the summit of the right lung, which afforded, when he spoke, a perfect pectoriloquy, and there was gurgling when he coughed. The respiratory sound was indistinct on the left side, anteriorly, beneath the clavicle and over the second and third ribs : in all other parts the chest seemed healthy, save a state of respiration approaching the puerile which was heard in the lower lobes. In order to subdue the constitutional fever and painful cough, I directed some blood to be taken from the arm ; and this not affording the expected relief, several leeches were applied a few hours after to the anterior and upper part of the chest ; and, scruple doses of nitre, with a quarter of a grain of tartar emetic, and a drachm and a half of syrup of poppies were taken in an ounce of some demulcent vehicle, at intervals of four or six hours during the day. This compound acted freely on the kidneys, and, together with pills taken at bed-time, containing extract of lettuce, ipecacuanha, and precipitated sulphuret of antimony, gave, in the course of four or five days, great relief to his pectoral disorder. Though I succeeded two or three times, by means of leeches again and again applied, and medicine varied to meet new symptoms as they appeared, in regaining for him what, comparatively speaking, he considered a return of tolerable health ; still, with a view to effect a perfect cure, it occurred to me, that as my patient was a man of no small ingenuity, I might possibly get him to make a steel instrument shaped like a collar, deep behind, and so contrived, whilst it produced no inconvenience on the neck laterally, as to make a gentle pressure on the small part of the trachea, immediately above the sternum, and between the sterno-cleido mastoid muscles. This new agent was soon ready for use, and was worn at intervals for the space of two months. In front, a small piece of dry sponge was placed between the converging points of this imperfect collar and the wind-pipe ; most happily for the patient, the pressure on the wind-pipe caused a slight mucous inflammation within it, and this was succeeded throughout the lungs by bronchial irritation, with a slight wheezing denoting an enlargement of the air-vesicles. None of these symptoms were interfered with ; and they continued for some months, after every apprehension of consumption was removed. It was really wonderful

how much he increased in flesh, and to what bodily vigor he arrived, especially when the catarrhal complaint had established itself in the neighborhood of the tuberculous disease in the superior lobes. At the expiration of a fortnight from this time, a loud mucous rattle began to appear near to the seat of the pectoriloquy in the top of the right lung; all trace of a cavity was nearly lost, and the respiration thence daily became more audible. The same improvement took place in the respiration of the upper portion of the other lung, which, I have already mentioned, seemed to be diseased. With the exception of periodic shortness of breathing, sometimes preceding and at other times following fits of coughing, the patient might be said, were he judged only from his looks and his feelings, to be perfectly well. After tracheal rattle had been distinctly heard in the larynx for a month, and appeared to be extending itself along the trachea to the larger bronchial tubes, he was directed to discontinue altogether the further use of that simple apparatus, the steel collar. On one occasion only was it necessary to moderate, by the application of leeches, the mucous excitement of the lungs, when it ran so high as to cause suffocative breathing, incessant cough, superabundant expectoration, and general febrile disorder. With the exception of five grains of compound ipecacuanha powder, and double that quantity of extract of hops, made into pills to be taken at bed-time, and the occasional use of a mild aperient, there was little else done for the supervening catarrh; for I felt exceedingly reluctant to interfere much, well knowing the value of the new disorder, and that it would long prove a successful antagonist to any future, as well as present, liability of sinking under consumption. In the month of August, 1830, which was three years from the time he became my patient, I had an opportunity of seeing him in the enjoyment of excellent health; if I except a little asthmatic respiration, which I detected by the naked ear, whenever he made a forcible expiration. The expirations were of an emphysematous character, in the upper part of the chest, both before and behind: the air, in fact, was heard escaping from the enlarged air-cells with a prolonged murmur in which dry cracklings were audible, perhaps arising from some air-cells being united into one. Having ascertained what I have just described, and how much the shape of the chest had been altered, which, from being narrow in its antero-posterior diameter and flat, was become cylindrical and enlarged, I assured him that he never would relapse into his former consumptive state; and that with some care, on his part, in attending to the directions which I gave him, his present asthmatic symptoms would have little effect in abbreviating the duration of his life.

This case is highly instructive. It is one by which mechanical aid produced, in the midst of summer, such a degree of general catarrhal affection of the air passages of the lungs, that complete recovery took place. Nor was this all; for, through the emphysematous state of the

lungs, perfect security existed against any liability hereafter to tuberculous productions. In a word, he escaped all danger of pulmonary consumption.

It may not be uninteresting to mention the particular circumstance which led me to imagine and adopt the above invention. A gentleman of the name of Willis, who a few years ago resided in the neighborhood of Kennington, and was under my care, happened to have a small oblong tumor in front of the neck, with its inferior portion lying between the sternum and the trachea, from which resulted a slight obstruction to his respiration. This tumor, which had existed for some years, had induced a perfectly asthmatic state. By preventing free expiration, and likewise by exciting a slight continuous inflammation of the mucous membrane from the point of pressure into the numerous ramifications of the bronchi, the air had become imprisoned within the air-cells, and in this manner was produced a general emphysematous state of the lungs. Besides the difficulty of breathing, usually attendant on this condition of the pulmonary organs, the obstruction from the tumor naturally caused him to breathe with a loud, wheezing, and somewhat croupy sound. Observing this, I concluded that if a slight mechanical resistance to the free egress of air from the lungs could be produced, so as to impart the prophylactic benefits of the asthmatic state, without the distressing and aggravated accompaniments noticed in the case just described, it would be a remedial agent of no small efficacy. "On this hint I spake;" and, seconded by the ingenious contrivance of the artisan whose case I have particularized, I was fortunate enough to bring the contrivance to bear, and to find that I had not miscalculated its advantages. I have entered into this detail, as it serves, by analogy, to throw additional light on the position I have advanced respecting the non-liability of the asthmatic, or catarrhal, patient to phthisis; although, from the superior benefits to be obtained by a duly extended course of inhalation, and having satisfied my curiosity by the experiment, I have never since employed the preceding mechanical contrivance.

A positive proof of the advantage accruing to the consumptive patient through mechanical development of the lungs, is to be inferred from the general immunity from phthisis enjoyed by those families in which a well-formed chest is common to all the members. I may cite as, what the lawyers call, a case in point, the numerous offspring of the venerable George the Third, himself the model of a manly form. Heaven knows, nature must have done more for them than medicine.

A negative proof of the benefits of inhalation, and a positive one of the inefficacy of medicine, has unfortunately occurred, of late years, in the family of a noble lord, to whose illustrious kinsman this country is indebted for one of the greatest boons ever conferred upon it by legislation. It is impossible to look upon the frank, artless, but pensive features of the lovely boy, whose lineaments are recorded by the im-

perishable pencil of Lawrence, and not to regret that medicine could effect nothing.

How long will it be before this truth will lead the scientific to adopt its fellow truth—that, so surely as medicine alone will ever fail, the mechanical means I have pointed out will succeed?

My remaining observations on the treatment of consumption will be brief, for two reasons: first, since I have fully detailed the two most important branches of the curative process; and, secondly, because the general uses of medicine are to palliate, or, by inducing a chronic state, to favor the supervention of catarrh. Again, by removing the constitutional symptoms, the local affection may terminate in an insensible excavation, hardly interfering with the general health.

Amongst the innumerable medicaments that have been, and are still tried, I shall specify a few, the advantages of which are capable of proof, not depending on the caprice of fashion—there being a fashion even in medicine—or upon any imaginary virtues. Our dispensatories are full of such drugs, and so unfortunately in practice; yet the number applicable under any form to phthisis, is of a limited extent.

Cathartics.—Recourse must be had to purgatives very sparingly, in the commencement of consumptive symptoms, as the general health is usually deranged. From an erroneous view of the causes of consumption, great mischief has arisen in the employment of aperient medicines; and this injudicious treatment has been propagated by the sanction of names of no mean authority. Instead of increasing debility by the exhibition of cathartics, it is infinitely preferable to remove congestion by the moderate abstraction of blood, as previously noticed. Great caution should be observed, as to the kind of medicine employed for purgative purposes. Saline aperients ought in general to be avoided, from the debility they induce by carrying off the serum of the blood, and by too rapidly accelerating the passage of the chyliferous matter, before due absorption takes place. It should be borne in mind, that a relaxed state of the bowels is a very frequent accompaniment of consumption; and that any undue administration of laxative medicines will, in most cases, superinduce abdominal gripings and diarrhoea, events which cannot be too sedulously guarded against. In the inflammatory complication of phthisis, a powder, composed of from ten to fifteen grains of jalap, combined with two or three grains of calomel, may be administered as an auxiliary to venous depletion. Indigestion is of no uncommon occurrence in consumptive complaints, yet, as it usually arises from vascularity, and morbid sensibility of the stomach and of the intestines, the most rational method of proceeding is to equalize the circulation by moderate venesection. Occasionally, a few leeches; applied to the pit of the stomach, will be equally successful in removing dyspepsia. As an ordinary laxative, a few grains of dried subcarbonate of soda, calcined magnesia, and rhubarb, taken in some liquid vehicle, will be found highly useful.

Emetics.—At one period emetics were held in no slight repute ; and much useless torture, or I should rather say injurious pain, was the consequence to the consumptive sufferer. It has always been a principal object with me to avoid every thing calculated to distress, or annoy, without imparting benefits equivalent to the uneasiness undergone. That this is not the case with the administration of emetics is proved convincingly by the fact, that when vomiting is brought on in a natural way by violent coughing, the patient experiences no relief. Whatever faith medical men may be inclined to place in the remedial powers of emetics, I have none ; although I candidly confess, that I am in the daily habit of prescribing small doses of the tartarized antimony, and of ipecacuanha ; yet in so minute a degree, that they are within the limit of actual nausea.

Sodorifics.—Twenty or thirty years ago, it was the general practice, in all diseases, to determine to the surface of the body ; and some practitioners, enamored of the wisdom of their youthful days, still adhere to it. Great injury undoubtedly resulted from this indiscriminate course, and more particularly would this be the case in phthisical complaints. Although employed with the view of diverting morbid action from the lungs to the surface of the skin, yet the consequence of the stimulus thus imparted is not unfrequently increase of hectic fever, terminating in pulmonary engorgement, or other visceral excitement.

No relief indeed is afforded by sodorifics ; on the contrary, when perspirations occur spontaneously, they are found sensibly to reduce the patient's strength. In the hot stage of hectic fever, I endeavor to reduce the tenseness and aridity of the cuticular surface, by having the hands and upper part of the body sponged with tepid water and vinegar ; and I order this to be continued, until a reduction of temperature takes place. The same treatment is to be pursued on every return of the hectic paroxysm. It being of infinite importance to preserve an equable temperature of the body, I uniformly attempt the removal of whatever state is unduly predominant : therefore, in the cold stage, I direct the immersion of the feet in warm water, and advise the patient to take some warm beverage, as tea, &c. ; and, when perspiration is profuse, I lessen it by administering either an infusion of columba or of camomile, in preference to the acidulated infusion of roses, in such general, but, in my opinion, injudicious use. Except in the very last stage of the disease, the application of leeches to the chest, in periodically recurring perspiration, will be found far superior to any tonic whatever.

Expectorants.—The use of this class of medicines seems founded on no valid reasons ; nor are the benefits produced very visible or satisfactory. Could they stimulate the mucous membrane of the lungs to a catarrhal state, they would be beneficial indeed : colchicum, I have reason to believe occasionally operates in this manner ; but its effects are uncertain.

Mercurial agents exert a powerful influence in promoting expectoration, as they likewise do on every other secretion; and this property has led to most injurious consequences. Some years ago, I had opportunities of seeing, in the practice of a deceased physician at the London Hospital, a woful example of the evils arising from the exhibition of mercury in cases of phthisis. The facility given to expectoration seemed to delight this practitioner; but it was so rapidly increased, and accompanied by such extreme perspirations, wasting away, and diarrhœa, that the patients soon went into what is vulgarly, but not inappropriately, denominated—galloping consumption.

Narcotics and Demulcents.—The latter, as remedies, are out of the question; but, as palliatives, are highly serviceable. Being mostly of a nutritious nature, they tend to keep up the patient's strength, while they soothe the irritability of the chest. The former are occasionally useful, but they are liable to great abuse. Given with a view to promote sleep at night, much nicety is required in their regulation. When the hectic state and excitement obstructive of sleep have been removed, recourse may for one night be had to an opiate; but should it be repeated on the succeeding evening, it too often happens that its effect will be lost. Digitalis and hydrocyanic acid have both been extolled as of infinite efficacy; but they are undeserving of the high reputation bestowed upon them.

Astringents and Tonics.—The first of these are employed for a three-fold purpose—to check discharges of blood from the lungs, to restrain colliquative perspirations, and also diarrhœa. Sulphuric acid, with infusion of roses, has acquired much notoriety as an astringent; but I seldom employ it, since I find its use not unfrequently followed by distressing tension of the chest. Although, I own, it may be advantageous for a time, yet its continuance is apt to exercise an effect the reverse of what is intended. It seems to me, in such cases, to increase rather than diminish hæmoptysis. The acetate of lead in small doses, combined with opium, is far superior not only to the acid, but to every other astringent. All danger of its producing an unpleasant action upon the bowels, apprehended by some, may be obviated by occasionally intermitting it, and regulating the evacuations. I have already pointed out the most salutary mode of checking perspiration, by the application of leeches to the chest, and it remains for me to notice the best remedial agents for diarrhœa. These are chalk, kino, catechu, pomegranate bark, and Armenian bole. Chalk, with a few minims of Battley's preparation of opium, administered in barley water, gruel, &c., will be found to equal in efficacy more compound admixtures. Of tonics, the simplest are the best. Bark, I rarely, or ever, prescribe; but under particular circumstances, infusion of columba, of camomile, or occasionally of cascarrilla, may for a short period be not disadvantageously employed.

Balsams.—I hold it totally unworthy time, or paper, to waste many words on this very futile description of medicine, at least as applied in consumptive cases. It was supposed, in the days of Dr. Morton, and of Van Swieten as well, that balsoms exerted a vulnerary power; but to use such medicines at present, or to suppose that any medicine whatever can heal ulcers of the lungs, betrays an extraordinary ignorance of the peculiar nature of phthisis. There can be no other possible method of healing them, than by bringing their surfaces in apposition, since, unlike other ulcers, they never granulate.

Blisters.—When expectoration is superabundant, or an œdematous state of the lungs is supervening, these may be applied with success; and when abstraction of blood generally, as well as locally, fails in removing fixed pain of the chest, I find them very useful. In general, however, they are too indiscriminately employed; since their use at an improper period tends to bring on, and accelerate, the hot stages of hectic paroxysms. Thus they superinduce a continued febrile state, not unfrequently terminating in some variety of thoracic inflammation.

Diet.—As a general rule, the system of over-feeding, or, to use a common phrase, of keeping up the strength of the consumptive individual, cannot be too strongly deprecated. It is, indeed, strange to find any one so imbecile as to recommend in a disease in which, even under the most judicious treatment, febrile action will be of almost daily occurrence, a course of diet suitable only* to the healthy and vigorous: yet, in the absence of gastric irritation, and on the abatement of hectic fever, the food may be of a nutritive and invigorating description. This caution, however, is to be borne in mind, that *whatever is followed by increased heat of body should be abstained from*. The best index of food agreeing with a patient, is the absence after meals of constitutional disturbance. Except during the presence of inflammation and of hæmoptysis, I am in the habit of allowing the moderate use of meat once a day, with an egg occasionally at breakfast or by way of lunch, according to the patient's fancy; nutritive broths, taken lukewarm, (indeed, except the patient feels chilly, whatever liquid is drunk, should be of very moderate temperature,) and, as to a milk diet, so commonly ordered, I reject it altogether. It excites expectoration in an unusual degree, without however leading to a catarrhal state. When consumption is decidedly manifested, wine is for the most part inadmissible. A small glass of ale at dinner may at times be permitted; and occasionally at night, with the view of inducing sleep.

Climate.—It has been seen from the preceding pages, how much I am at variance with the common opinions entertained of phthisis, and to none am I more diametrically opposed than to those which respect climate. So far from sending a consumptive patient to the south of France or Italy, I should, if change be requisite, deem the climate of St. Petersburg a thousand times more beneficial. In the latter case

he has a chance of contracting catarrh, and of thus staying consumption: in the former, any catarrhal state which might exist would assuredly be fatally removed. When I hear of consumptive individuals being recommended to try the genial climes, as they are absurdly termed in these instances, of Lisbon, Madeira, or other sunny lands—and when I reflect on the evidence given by medical statistics of their deadly influence on phthisis, I long to suggest the fitting answer to such advisers: “*Me vestigia terrent omnia adversum spectantia, nulla retrorsum.*” My experience on this point is full and explicit; and I could substantiate it, were it requisite at the close of a treatise the scope of which has been to prove the true nature of this little understood malady, by numerous cases.

So decided am I on this head, that I never admit into the infirmary a phthisical patient with recent catarrh, because its wards are heated in winter time so as to resemble a moderate summer temperature. The cases of consumption, that come under my notice in summer, are nearly double the number of those I see in winter. The reason is evident:—the augmented temperature of the weather increases the intensity of two of the most important stages of the hectic paroxysm—the hot, and the sweating. To subdue these, then, becomes peculiarly difficult: how likely they are to be aggravated by going abroad, any well-constructed thermometrical table will tell. Again, if the disease be latent, removal to a warm climate is the most probable means of making the case one of manifest phthisis. In uniformity with these opinions, I feel no anxiety respecting consumptive patients being kept scrupulously within doors. Whenever the weather permits, they should be allowed to take an airing daily; but be by no means suffered to remain so long as to be sensible of chilliness or cold.

From every inquiry I have made with respect to the influence of climate, I conceive that, all things duly considered, the patient cannot have a more suitable residence in winter, than in some of the spacious, well-ventilated streets of our own metropolis. Another consideration—a great one to the invalid—is that of comfort, a word indigenious among ourselves. Many of those who had been led by blind guides to roam abroad in a vain search after that health which, under judicious treatment, they might have preserved here, have assured me, to use the language of Sterne, that they had done better to “have remained dry shod at home;” and I am convinced that the greater number thus sent on a useless errand, make—when hundreds of miles from their own comfortable fireside—the reflection that occurred to honest Touchstone, “Ay, now am I in Arden—the more fool I; when I was at home, I was in a better place.”

CHAPTER V.

CASES OF CURED CONSUMPTION.

[There are numerous cases detailed in the work of Dr. Ramadge, in which his method of treatment has, unquestionably, cured consumption. The following may serve as specimens:]

CONSUMPTION CURED BY NEGLECT.

A silversmith, when in good health and circumstances, and nearly fifty years of age, was exposed to one of the most terrible of all paternal inflictions—the misconduct and subsequent legal punishment of his son. The young man, having formed dissolute connection, had been persuaded to pass a forged note; and, on the fact being proved against him, was sentenced to transportation. The disgrace, thus brought on their hitherto unimpeachable family, operated so powerfully on the feelings both of the father, and of a daughter just entering into life, that their distress and agony of mind at last entirely undermined their health. The debility, thus induced, terminated in each of them in consumption. After a few months' illness, the daughter died; and the father, after extreme suffering both of body and mind, having apparently reached the verge of the grave, and being indeed so utterly reckless of life, which he regarded only as a burden, as to neglect not only recourse to medical advice, but even common care of himself, yet recovered, and survived for many years. It was fully seventeen years subsequent to this seemingly miraculous recovery, that I attended him on the occasion of his being seized with an apoplectic fit, resulting, as I afterwards had reason to believe, from valvular disease of the heart. During his convalescence from this attack, he was unfeelingly taunted by some brute in human shape with his son's disgrace; and so wounded and humiliated did he feel by this unworthy allusion, and so deeply did it sink into his mind, that I entertain no doubt it accelerated his death. It was during my attendance on him, that learning from his wife his previous consumptive state and recovery, and perceiving that he labored under a bronchial affection of long standing, I at once attributed the return to health which she regarded as so strange, to the ingression of catarrh on phthisis. The *post-mortem* examination verified my conclusions; it presented well-defined cicatrizations, especially on the summit of the right lung; nodules of tubercles, yellow and opaque in

the centre, and rendered inert by the secretion of black pulmonary matter in the surrounding tissue, and the lungs were exceedingly voluminous. I will venture one observation on the case, and although it may appear harsh, regard for truth and the advancement of medical science compel me to make it; namely, that had this person, when reduced to a phthical state, recurred to medical advice, the probability is, that the bronchial affection, which was his safeguard, would have been interfered with, its value being unknown to the profession, and his life, consequently, shortened for years.

CONSUMPTION SPONTANEOUSLY CURED.

Miss M——, about twenty-three years of age, a lady of great personal attractions, and highly cultivated mind, consulted me in the summer of 1826, for symptoms of confirmed consumption; for which she had already enjoyed the benefit of Mr. Howship's advice. It was arranged that I should visit her in conjunction with this talented surgeon; and we continued to attend her for several weeks. In all the cases I have witnessed, I never met with such distressing, racking, and perpetual cough. We tried every method of relief we could possibly devise, and administered sedatives of every description, but without effect. Her disorder, instead of receiving mitigation, evidently increased; and not only were the fears of her friend awakened, but we ourselves began to despond. At this crisis, through the importunity of some near connections, her mother was persuaded to try the advice of an individual, who, although I am not aware that he had received a regular medical education, enjoyed some notoriety. On receiving a delicate intimation to this effect, and being of course inclined to humor the natural anxiety of a parent, we agreed that it might not be totally *infra dignitatem* of us, the more legalized authorities, to hear what this person might suggest, although a formal consultation was out of the question. To do him justice, we found his opinions sensible, and much to the purpose; but he considered the condition of the patient as so hopeless, that he declined interfering with the case. Yet, notwithstanding these grave prognostics, the young lady, to our great satisfaction, soon after this began to exhibit signs of amendment. Her health was gradually restored, and continues, I believe, unimpaired up to the present time. From my further experience, and from cases which have subsequently come under my notice, I entertain no doubt that the cough I have already alluded to, and which was of a convulsive character like that of the whooping-cough, must have produced a rupture of the air-cells, which caused infiltration of air within their partitions. This variety of emphysema, similarly to the vesicular, renders, while it lasts, the lungs voluminous; and when happening in the neighborhood of the diseased summit of the lung, would naturally bring the surfaces of any excavation into contact. Indeed, although from my reluctance to put the patient to inconvenience

by examining the chest in the latter part of her illness, I could not possibly affirm the existence of emphysema, still all my reflections on the case lead me to the belief, that she is in no small degree indebted for her cure to a cough, which in general would be considered highly injurious, and in fact appeared so to me at the time.

REMARKABLE INFLUENCE OF THE PROTECTIVE POWER OF A BRONCHIAL AFFECTION.

I offer this case as one instance out of many, equally as decisive, which I could adduce, of the value of catarrh in preventing pulmonary consumption. An eminent publisher of Paternoster-row, all of whose brothers and sisters have been the prey of consumption, is himself subject to asthma, induced by a catarrhal affection of the chest contracted in childhood. The gentleman to whom I allude, is at present about fifty years of age, of a ruddy, healthy complexion, expanded chest, and excepting occasional inconvenience experienced from the above constitutional complaint, he enjoys life in every respect. It is but fair then to infer that since, out of a numerous family, he is the sole member who has escaped phthisis, this singular exemption has been owing to what might to a superficial observer appear an infliction, but which is really in this instance a providential dispensation; namely, catarrhal asthma.

Being thus naturally led to the subject, I take the opportunity of explaining a very remarkable phenomenon, exhibited in the offspring of consumptive and asthmatic individuals. That consumption is hereditary, I have already noticed; but an additional confirmation not only of this fact, but of the truth of the opinions I have given on the preventive nature of catarrh, may be found in a circumstance often noted by me—that when a consumptive individual becomes asthmatic, the children born prior to the supervention of asthma exhibit a phthisical diathesis, whilst those who are born subsequently are entirely free from any consumptive tendency. Exceptions may undoubtedly be met with, the result of some strong exciting cause; but, generally speaking, the rule will be found to hold good: the exception, indeed, will substantiate the rule from the resistance, in such cases, offered by nature to the inroads of consumption.

CONSUMPTION CURED, NOTWITHSTANDING EXPOSURE TO COLD AND NEGLECT OF MEDICINE.

Mr. D—, aged 24, had so materially impaired his constitution through irregular habits, as to fall in consequence into a decline. He of course availed himself of the benefit of medical advice, which produced no very visible amelioration of his state of health. Being naturally of active habits, he grew impatient of the confinement to which he was subjected, and, tempted by the return of spring, he suddenly deserted his heated apartment, and determined, since he concluded he must die, to die in the manner most agreeable to himself. Accordingly he betook himself to his favorite sport of fishing. This was in the month of March, a period at which easterly winds are most prevalent. The worst consequence of this apparently rash exposure was, that after a time he caught a cold, which, as it would appear, was confined to the trachea. His respiration was sensibly affected, and he labored under a distressing fulness of the chest. He continued subject to this affection, with an apparent increase of the violence of his disorder; but he still rejected all care and medicine, and persevered in going out. After some period, he began to exhibit signs of amendment; he gradually lost his emaciated appearance, and acquired flesh and bodily vigor; but was much annoyed by wheezing of the chest, and loud rattle in the throat. He had remained in this state for some months, when he applied to me. On examination of the chest, and hearing a detail of his complaints, not only from himself, but from the gentleman under whose care he had previously been, I at once perceived that he was indebted for his recovery from consumption to this catarrhal state of the trachea. I may here observe, that recoveries of this kind are more frequent among the lower, than the other classes of community; owing, doubtless, to what may at first appear a misfortune, but is to the consumptive patient, in numerous instances, a blessing—exposure to cold!

CASE OF CONSUMPTION EXEMPLIFYING THE GREAT VALUE OF INHALATION.

A gentleman, aged 50, whose house of business is in Hatton-garden, began to exhibit decided symptoms of consumption about three years ago. Originally of delicate constitution, and inclined by his make to phthisical disorder, his health was undermined by family afflictions. Within a very briefspace, he lost his wife and two grown-up daughters; the two latter through the same destructive complaint, which, supervening on the decay of health occasioned by grief for their loss, has since endangered his own life. At the time I was called in, he exhibited the

physical signs, as well as the constitutional symptoms, of the disease. He had inflammation of the inferior and middle lobe of the right lung, and expectorated no inconsiderable quantity of blood. This circumstance, indeed, is no unfrequent concomitant of the above inflammatory state, when it co-exists with tuberculous excavations of the lungs. He had been under the care of two able practitioners, his brother-in-law, Mr. Wallace, and Mr. Christie, a surgeon in the neighborhood of his country residence. Both these gentlemen considered their patient in a most alarming state; and on seeing him, I fully shared their apprehension. The first consideration was to subdue the inflammatory state; and for this purpose blood was taken from the arm, and medicines were likewise exhibited to further the end proposed. The pneumonia continuing, it became necessary to repeat the general abstraction of blood, and to follow this up by the application of leeches near the seat of the inflammatory action. By these depletory measures, the pneumonic disease lost its more violent symptoms; but, after displaying a temporary amendment, the active determination of blood to the chest recurred with its former severity. At this juncture, his brother-in-law, Mr. Wallace, who watched the case with great anxiety, considered himself fully justified in bleeding him in my absence, and that to some extent. Leeches were also repeated, and medicines given, whose chief action was determined to the kidneys. Under this plan of treatment, he gradually got rid of the formidable pneumonic complication, and it remained to counteract the phthisical disease alone; which, after a time, began to exhibit graver and more pressing symptoms. In fact, the patient was at this period in so lamentable a condition, and so utterly hopeless of recovery—being rendered additionally uneasy by the discharges of blood again appearing—that he arranged his affairs, and made every preparation which a conscientious man deems it imperative to do, when looking forward to the awful summons. Having first reduced the spitting of blood, and removed some of the more formidable external symptoms connected with phthisis, I pressed the necessity of recurring to inhalation. The practice was novel to the other medical gentlemen, but I pointed out its *rationale*, and illustrated my opinions by the convincing support of cases. They yielded to my arguments, inasmuch as their reason was convinced; yet so unwillingly, that they could not enlist their hopes on my side. The utmost they at first expected was palliation; but they could not bring themselves, as they have since owned to me, to believe that inhalation could effect the healing of internal ulcers, and prevent the fresh formation of tubercles. The trial was, however, made; and its result up to the present date, has been attended with marked success. In less than two months from the period of the patient's commencing to inhale, his chest was so much enlarged as to render it necessary for him to have his waistcoats let out; and his general health was proportionably amended. It is now two years and a half since he began this pro-

cess, and for the last two, he has been enabled to attend constantly to his business in town. He inhaled for many months twice a day, except at such times as slight spitting of blood, arising from the cavities not being yet entirely closed, has called for an interruption. This is a circumstance, which, although it is apt to occasion alarm in the patient, is to be expected in many instances, so long as the excavation remains. I have already adverted in Case XI. to a similar instance of sanguineous expectoration, which likewise proved perfectly innocuous. The cure was in the case of this lady complete; and in that now under consideration, I am happy to be able to say "*finis coronat opus.*"

CASE OF A MEDICAL GENTLEMAN WHO HAS RECOVERED BY INHALATION.

Mr. Clements, aged 25, member of the Royal College of Surgeons, did me the honor to solicit my advice more than two years ago. I found that he labored under well-marked symptoms of consumption. Since, however, they presented no peculiar features, it is unnecessary to recapitulate the long list of constitutional and physical phenomena, which have been so often described in the preceding pages as concomitants of the disease: suffice it to say, that I have enjoyed the satisfaction of seeing him recover; and that he chiefly owes his restored health to inhalation.

PROTECTING INFLUENCE OF PARTIAL EMPHYSEMA, EXEMPLIFIED IN THE LONG LIFE OF A CONSUMPTIVE PATIENT.

Martha Henderson, of Cherry Garden-street, Bermondsey, first came under my care about thirteen years ago. She was at that time fifteen years of age. It appeared that phthisical symptoms first supervened after an attack of the small pox, which had seized her naturally the year preceding. The ill health engendered by this, it is probable, gave rise to the formation of tubercles in the lungs. She exhibited no signs of consumption in her person. Her countenance was florid, not flushed; and the emaciation usually witnessed in consumptive patients, was not observable. The hectic symptoms were very irregular and undefined, recurring at uncertain intervals, and those far distant. She was subject to cough, and shortness of breath, influenced by changes of weather; but the most remarkable symptom was the quantity and the fetor of her expectoration. It resembled the matter discharged by a phlegmonous abscess, and she could bring it up at will. She imagined from the peculiar sensation she felt there, that it proceeded from the right side of the chest; and, in point of fact, a great sympathy was discernible betwixt the external and internal parts on this side. A swelling, and induration of the mamma, invariably took place whenever the

matter collected to any great extent within. I have alluded to the fetid odor of the expectorated matter; it was of so rank and sickening a nature, that her parents, although she was their favorite child, needed every excitement that a sense of parental duty could give, to enable them to live with her. It is no exaggeration to say that it contaminated the whole house, and was perceptible as soon as the street door was opened. I have seen my own pupils ready to vomit at the disgust it occasioned, and have, used as I am to such scenes, been affected by it myself. When I first examined her, she exhibited the following symptoms:—The sound of respiration was barely audible over the right side of the chest, with the exception of a space, about two inches square, between the clavicle and the third rib, where a loud gurgling rattling was heard, caused by the intromission of air into a cavity containing a quantity of puriform sputa. A mucous and sometimes sibilous sound was occasionally heard in some of the bronchial tubes, in the inferior region of the same lung. The opposite side of the chest gave out an asthmatic wheezing, from the clavicle downwards, as far as the fourth rib. The inferior part of the same side, both before and behind, yielded a dull sound on percussion: and the respiration was nearly inaudible over the same region. When she spoke, I could discover on the same side distinct pectoriloquism in the midst of this imperfect respiration. After examination, I recorded the following diagnosis:—*Large excavation in the superior lobe of the right lung, containing a quantity of liquid matter; the rest of the lung, on the same side, tuberculated; cavity in the middle of the inferior lobe of the left lung, the remainder of the lobe in a state similar to the opposite; the upper lobe of the same lung emphysematous throughout.*

I augured no long period after this, that she was likely to live many years; feeling assured that the asthmatic condition of the one lobe of the lung would counterbalance the defects, alarming as they were, of the rest of the pulmonary apparatus. I caused her to attend on several occasions, when lecturing on diseases of the chest, to point out the phenomenon of a person existing so long under such ravages from consumptive disease. She was seen several times at the Central Infirmary, as well as the Infirmary for Diseases of the Chest; was well known to the two apothecaries of those establishments; and must have come under the notice of above one hundred professional individuals. I was not aware, for some time after her first attendance on me, of the value of that emphysematous state, which I now recognize as the preserver of her life for so long a period. Hers was at first considered by me as a remarkable case, from the circumstance of her displaying most of the external signs of health in spite of her really distressing condition. Of late years, however, I have learnt to estimate properly this strong corroboration of the truth of those views, which I have at last systematized, and reduced to proof.

A singular peculiarity, connected with the history of the patient, is, that from the age of fifteen to twenty-two, her personal appearance exhibited no change. She displayed the same girlish look throughout these years ; and it was not, indeed, until she had turned her twenty-second year, that she underwent the catemenial crisis. After this, it was astonishing how quickly she acquired the aspect and proportions of womanhood. She was an occasional patient of mine, as I have already stated, for the space of ten years ; applying to me from time to time, whenever she was in London. In the course of these years she experienced several severe inflammatory attacks. The immediate cause of her death was, in fact, a violent pleurisy, which seized her when on a visit to some friends about forty miles from town. She endured this as long as she could hold up, without taking any medical advice ; and at last hastened home, and sent for me. But she had delayed till too late. Her tongue was thickly covered with aphthæ, her lips livid, her respiration so impeded as to prevent her from lying down, and accompanied with extreme pain in the side : her extremities were cold, and she had occasional hiccough. I saw that she was beyond the reach of medical aid ; and the poor girl expired within thirty hours after reaching home.

Dissection, thirty-six hours after death.—The right lung was adherent throughout, by ancient attachments, to those parts with which (though without adhesion) it is naturally in contact. The summit was indented, indurated, and covered, or capped as it were, by a fibro-cartilaginous mass. Highly condensed cellular substance, of irregular thickness, and about an inch and a half in length, extended itself into the lung, and gave off several bands, of the same structure, which ran in nearly a horizontal direction, and gradually lost themselves in the cellular membrane of the viscus. The structure just described, was probably formed from the cicatrization of ancient vomicæ. In the same summit there were a number of tubercles, in different stages, several of them surrounded by black pulmonary matter. There was a large cavity, nearly opposite the third and fourth intercostal spaces, containing a calcareous secretion of the size of a peach stone ; and instead of being lined by semi-cartilaginous membrane, its lining was composed of laminæ, of the color and consistence of old yellow wax. The rest of the lung contained a multitude of greyish tubercles, of unusually firm consistence, and of various sizes : on cutting it, a quantity of frothy serum flowed out. The upper lobe of the left lung completely filled the cavity of the chest, on that side ; and, when handled, imparted a sensation different from the natural crepitation, and somewhat similar to that caused by the displacement of some elastic fluid. Its surface exhibited several transparent vesicles, some of the size of an almond, evidently dilated air-cells. The dilatation of the cells over the rest of this lung, was likewise remarkable. On making a longitudinal section of this lobe, a slight trace of cellular cicatrix was percep-

tible; and two of the bronchial tubes were considerably dilated from their catilaginous termination. The mucous membrane of all the tubes, without appearing highly vascular, was considerably thickened, and contained much yellow opaque matter. The inferior lobe, on the same side, on its anterior and lateral surface, was adherent through the medium of a false membrane a quarter of an inch in thickness, containing beneath it a gelatinous substance, transparent and almost colorless. There was a large cavity, with tubercles, similar to those presented in the superior lobe of the opposite lung, but not so numerous; and marks of inflammation were exhibited in various places. The above cavity, which occupied the centre of the lobe, and communicated by a large opening with another of less size, had a membranous lining exactly resembling in structure that which I have described as appearing in the excavation of the right side.

I entertain no doubt that there existed originally a cavity in the summit of the left lung, along with tubercles in a state of semi-transparency; the latter of which had been absorbed, and the former healed by the first intention.

CONSUMPTION WARDED OFF BY THE PRE-EXISTENCE OF ASTHMA,
WHICH HAD LASTED UPWARDS OF TWENTY YEARS IN A FEMALE,
WHO SUBSEQUENTLY DIED THROUGH CANCER IN THE WOMB.

Mr. Morgan, a general practitioner of Great Newport Street, has, on various occasions, invited me to accompany him to *post mortem* examinations. I have had the pleasure of pointing out to him, in some of these associated labors, the cicatrices of cured consumption arising from enlargement of the volume of the lungs. In the case now under consideration, extensive cancerous disease had destroyed a great portion of the uterus and the bladder; had produced considerable induration of the rectum, as well as obturation of the external iliac, with a portion of the adjoining hypogastric vein on the right side; and had affected the whole of the right leg and thigh in a manner similar to what is witnessed in *phlegmasia dolens*. Notwithstanding the ill health induced by the continuance of cancer of the womb, with the deplorable accompaniments just detailed, as well as exhausting discharges for upwards of two years, no symptom of consumption appeared; but the patient, at last, succumbed under general effusion, the result of protracted debility. On opening the body, I pointed out to Mr. Morgan the asthmatic state of the lungs, (with cicatrices on their summits), which had acted as a preservative against the ingress of that phthisical condition which, without this state, would in such a case have indisputably supervened. I have had opportunities of showing similar cases to several respectable practitioners, and, amongst others, to my worthy friend, Dr. Helsham. My chief inducement for mentioning this case, is to impress upon the medical world the high

advantage of recurring, in all instances of debility occasioned by long continued chronic ailment, to mechanical means for preventing the sure inroads of consumption, the consequence of such state. Mr. Carmichael, of Dublin, has indeed affirmed, in the second edition of his excellent work on cancer, that he never examined the body of a patient who died with any variety of that disease, without finding the lungs tuberculated. This, in the first instance, strongly corroborates the correctness of my opinion, that consumption is a very common result of ill health produced by any ailments of long continuance; and, in the second, it shows by negative testimony the value of those means which will prevent such supervention. I have no doubt that this gentleman, in the prosecution of his pathological studies, will meet with cases in which the utility of catarrhal and asthmatic affections in anticipating, or arresting phthisis, will be well marked: and I feel pleasure in adding, that from his high character, and zeal for the true interests of his profession, he will, in such case, I am confident, be forward to acknowledge the accuracy of these observations, already verified by me in numerous examinations after death.

INTERESTING LETTER.

TENBY, 26th October, 1835.

DEAR SIR,—

I trust you will be pleased to hear of the success of a course of six months' inhalation in my case.

In order to bring to your recollection the circumstances under which I waited upon you for advice, I beg to refer you to your note-book, in which, if I recollect aright, you will find the 29th of last March specified as the date of my first visit. But as you may have kept no memorandum, I may remind you that mine was a case of sinking in of the sternum so as to press on the right ventricle of the heart; you likewise described the arch as being under compression and the ribs fixed. The attendant symptoms I need not detail.

I commenced inhaling on the 30th of March. You directed me to inhale three times a day; but being under great suffering at night when I assumed a reclining posture, I thought it desirable to inhale four times daily, which I followed up for the first four months. Finding myself greatly relieved at the expiration of this period, I have inhaled for the last two months only three times a day. It was not until the 22nd of April that I could manage to inhale continuously half an hour at a time; and on that day my girth was taken immediately under the nipples of the breast, by Mr. Shaw, our medical attendant.

May 22,	Increase the first month,	$\frac{5}{8}$	of an Inch.
June 22,	" second month,	$\frac{3}{8}$	"
July 22,	" third month,	$\frac{1}{2}$	"
Aug. 22,	" fourth month,	$\frac{3}{8}$	"
Sept. 22,	" fifth month,	$\frac{1}{4}$	"
Oct. 22,	" sixth month,	$\frac{3}{8}$	"

2½ Inches.

In the first measurement, my girth was 2 feet 10½ inches.
 October 22nd, it was - - - 3 feet 1 inch.

In June, I took six inspirations and six expirations per minute while inhaling. In August, I took only five inspirations and five expirations during the same time. This month, I have taken only five inspirations, and four expirations, or the reverse—showing, I presume, the increased volume of the lungs.

This increase is, I think, great at my time of life, as I am forty-six years of age. The benefit I have derived is necessarily very great. My ribs, judging from the heaving of my breast when I breathe, have, I should conclude, come into tolerable play. My lungs are amazingly strengthened: I can now sing at the very top of my voice, but not long together. I sleep in general well, but I am not able to lie on my left side. The sinking of the sternum, however, remains exactly the same, and occasionally my pulse intermits—generally whenever I stoop to do any thing. Nevertheless, I can walk at a great rate without inconvenience, and do walk from three to five miles every day. I have gained considerable flesh, and my appetite is always good.

I do not hesitate to say, that I think inhaling has done me more good, than all the *blue pills* I ever took for bilious attacks.

If this communication will tend to illustrate any point of practice, you are quite at liberty to use my name and reference.

I am happy also to inform you that Mr. Shaw has made a cure of consumption in this neighborhood, by following your system. I visited the individual when he was thought to be in a dying state, and he is now about pursuing his usual avocations.

I remain, dear sir,

Your obliged,

J. GREAVES.

APPENDIX.

It may be of importance to state, for the information of those who are unacquainted with the standing of Dr. Ramadge, and the institution with which he is connected, that he is a regularly educated physician, and for nearly twenty years last past, has been physician to the London Lung Infirmary. Through the kindness of a friend, I am enabled to give the following statement, copied from the Royal Calendar, and Court and City Register for England, Scotland, Ireland, and the Colonies, for the year 1825 :

“Infirmary for Asthma, Consumption, and other Diseases of the Lungs, Union-Street, Bishopsgate.

President, Duke of Sussex.

Vice-Presidents, Marquis of Camden, Marquis of Cholmondeley, Earl of Darnley, Earl of Crawford, Lord Calthorpe, Bishop of Salisbury, Benjamin Shaw, Esq., Thomas C. Marsh, Esq., John Meyer, M. D.

Treasurer, William Heygate, Esq.

Consulting Physician, Isaac Buxton, M. D.

Physician, F. H. Ramadge, M. D.

Apothec, and Surgeon, Mr. Hurkey.

Honorary Secretary, Samuel Amory, Esq.

Assistant Secretary and Collector, Mr. William Eddrup, White-chapel Road.

House-keeper, Mrs. Elizabeth Fuller.”

From the above, it appears that Dr. R., as long ago as 1825, was physician to the institution, and that the Infirmary was sustained by the most distinguished men in the kingdom—and I am enabled to state, from my own personal knowledge, that the institution is still sus-

tained by individuals of the highest rank, and that Dr. R. is now, and has been for several years past, the Senior Physician.

Another friend has just sent me a letter, from which I extract the following statement, copied from a foreign paper, confirmatory of Dr. Ramadge's views :

"When we breathe, we take into the chest or inhale, and give out a certain quantity of air, which can be measured by breathing through a curved tube, into a bell glass of water, inverted over a pneumatic tub. Dr. Herbst, of Gottingen, has lately been performing some curious experiments in relation to the quantity of air that is breathed. Now, a person of any understanding will appreciate from them the comfort of full and unrestrained breathing. Dr. Herbst says, that a middle-sized man, twenty years old, after a natural expiration, or omission of air, inspired or took in eighty cubic inches, when dressed, and one hundred and sixty when his tight dress was loosened. After a full dilation of the chest, he inhaled one hundred and twenty-six cubic inches when dressed, and one hundred and eighty-six when undressed. Another young man, aged twenty-one, after a natural expiration, took in fifty while dressed, and ninety-six when undressed. Had Dr. Herbst made his observations on some of the ladies, who carry the use of corsets to extremes, we apprehend that he would have obtained results of a nature really alarming.

"At the Hotel Dieu, the great hospital at Paris, a young girl of eighteen, lately presented herself to Breschet, for his advice. On the right side of her throat she had a tumor of variable size, but never larger than one's fist. It reached from the collar bone as high as the thyseid cartilage, (called, in common language, Adam's apple;) when pressed downward, it wholly disappeared; but returned as soon as the pressure was removed: it was indolent, soft, and elastic. It was observed to be the largest when the chest was tightly laced in corsets. In short, by placing the ear on it, the murmur of respiration can be heard in the tumor, which proves that a protrusion of the lungs has taken place, or in other words, that the poor girl had been laced so tightly, that her lungs, having no longer sufficient space in their natural position, are squeezed out of it, and are forcing their way up along the neck."

I will also take this opportunity to state, that, some years ago, I was much afflicted with dyspepsia—and after having been under the care of several eminent physicians of this city and elsewhere, I was provisionally directed to the late Dr. Talmage Sutherland, of this city, who gave me some instruction as to the importance of proper breathing; by which I, and many more, to my knowledge, were restored to tolerable health. Dr. Sutherland directed his attention more particularly to the beneficial effects resulting from proper breathing on the diaphragm, and abdominal viscera, and also taught his patients its importance as connected with the lungs; but his views were limited as compared with those of Dr. Ramadge. It has always been a cause of much regret to me, that Dr. Sutherland left no one to continue his practice, and that his invaluable instructions are lost to the community.

J. M. HOWE.

New York, 25th March, 1839.



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